



Secure the Grid

A Timeline – Key Events Leading to the Need for the Secure The Grid Coalition , Our Impact in Shaping the Debate, and recent state legislative victories.

- **1962**
 - The U.S. and Soviet Union independently discovered the same phenomenon: a high altitude nuclear explosion produces Electromagnetic Pulse (EMP) that can damage and destroy electronic systems on earth. This “secret weapon” remained highly classified during the Cold War
- **1977**
 - A 24 hour blackout in New York City resulted in the arrest of more than 4,500 looters, more than 550 police injured, and an estimated \$300 million in property damage.
- **1987**
 - Frank Gaffney, founder and President, Center for Security Policy, studied the threats to our nation’s power distribution systems or “grid” as Deputy Assistant Secretary of Defense for Nuclear Forces and Arms Control Policy in the Reagan Administration.
- **1989**
 - On March 13th a solar storm caused a complete blackout of the Quebec Province electric grid and damage to numerous transformers in the U.S. including the transformer at the Salem NJ nuclear generating station, causing approximately \$13.2 million worth of damage.
- **1990s**
 - As the Cold War comes to an end, the U.S. Defense Department begins reducing spending funds on shielding equipment from EMP and the Pentagon rapidly loses its capacity to understand and address EMP (particularly during the Clinton Administration), as EMP simulators are mothballed and dismantled.
 - At the same time, a report from the Office of Technology Assessment warned that “virtually any region would suffer major, extended blackouts if more than three key substations were destroyed.”
 - Concerned members of Congress work, without avail, to alert the Executive Branch to the danger of EMP through two successive presidencies.
- **1999**
 - Russian chairman of the Duma International Affairs Committee, Vladimir Lukin, explicitly invoked the specter of an EMP attack on the U.S. in relation to how Russia could

retaliate to NATO bombing in Yugoslavia. This gets the attention of both parties in Congress and the impetus behind the creation of the EMP Threat Commission is born.

- **2000**
 - On 30 October, the U.S. Congress established by law the “Commission to Assess the Threat to the United States from Electromagnetic Pulse (EMP) Attack” (AKA “The EMP Commission”) which is charged with identifying any steps it believes should be taken by the United States to better protect its military and civilian systems from EMP attack.
- **2003**
 - Gaffney published the article “**The Blackout Next Time**” on August 19th to discuss how the August 2003 blackout should be a wake-up call to the nation and to inform the nation of the work of the EMP Commission.
- **2004**
 - The EMP Commission published its first unclassified executive report, titled: **Report of the Commission to Assess the Threat to the United States from Electromagnetic Pulse (EMP) — Volume 1: Executive Report (2004)**. In this report, the Commission presented a blueprint for protecting both U.S. Military forces and the U.S. homeland from EMP attack. The report’s recommendations go largely unheeded.
- **2005**
 - Gaffney published the article “**The Terror Next Time**” on February 17th to raise awareness about recent statements from North Korea and Iran about their determination to wield nuclear weapons and how they could use EMP to attack the U.S.
- **2006**
 - Gaffney published the book “**War Footing**” and, along with contributions from U.S. Representatives Curt Weldon and Roscoe Bartlett, wrote an entire chapter dedicated to the topic entitled: “Counter the Mega-Threat: EMP Attack.”
- **2008**
 - The EMP Commission published its second unclassified executive report, titled: **Report of the Commission to Assess the Threat to the United States from Electromagnetic Pulse (EMP) — Volume 2: Critical National Infrastructures (2008)**. In this report, the Commission presented the results of the Commission’s assessment of the effects of a high altitude electromagnetic pulse (EMP) attack on our critical national infrastructures and provides recommendations for their mitigation.
- **2009**
 - Gaffney published the article “**An Avoidable Catastrophe**” on July 20th and “**EMP and You**” on September 7th to discuss the work of the EMP Commission as it relates to both the House Homeland Security Committee as well as the first ever public conference in Niagara Falls NY to educate and raise awareness about EMP.
 - U.S. Representative Edward Markey (D – MA) introduced the **Grid Reliability and Infrastructure Defense (GRID) Act** to amend the Federal Power Act to protect the bulk-power system and electric infrastructure critical to the defense of the United States against cybersecurity and other threats and vulnerabilities.
- **2010**
 - The GRID Act, which authorized the federal government to take emergency measures to protect some 300 giant power transformers around the country, passed by a unanimous

voice in the House of Representatives. Electric utilities opposed the GRID Act (the National Rural Electric Cooperative Association said the bill would give FERC too much power over utilities) and it was gutted of the measures to protect the grid from EMP attack by Senator Lisa Murkowski (R-AK) and committee chairman Jeff Bingaman, D-N.M., then died in the Senate.

- **2011**

- The International Atomic Energy Agency (IAEA) published a report on 8 November that showed that Iran re-engineered the payload chamber of the Shahab 3 missile re-entry vehicle in such a way that it could be used to accommodate a nuclear warhead.

- **2012**

- On 22 July, a “Carrington class” solar storm produced by a giant coronal mass ejection – a potential major EMP event – narrowly missed Earth.
- Superstorm Sandy struck the Eastern seaboard leaving 8 million customers in 17 states without power – more than 1 million of whom didn’t get service for a week or more.
- In December, North Korea reportedly practiced an EMP attack with the launch of its KMS-3-2 satellite, which passed over the U.S. heartland and the DC-NYC corridor, approaching from the south where the U.S. has no early warning or missile defense.

- **2013**

- On April 16, a highly professional physical attack takes place on a PG&E substation in Metcalf, CA, which nearly destroyed the power transmission system that supplies San Jose, San Francisco, and Silicon Valley. The perpetrators are still at large.
- Under pressure from Congress, the Federal Energy Regulatory Commission (FERC) asked the North American Electric Reliability Corporation (NERC) to set a standard for physical security of electric grid facilities. After lobbying by utilities, FERC agreed to exempt all generation plants and the grid’s master control rooms from the physical security standard.
- Gaffney publishes the article “**Do You Feel Lucky**” on May 20th to raise awareness about the prospects of both natural EMP as well as nuclear EMP and to report that on May 16th FERC commissioner Cheryl LaFleur issued a final rule that “orders NERC to develop, by the end of the year, reliability standards that address the impact of geomagnetic disturbances (GMD) on the nation’s bulk power system.
- On June 18th, U.S. Representatives Trent Franks (R-AZ) and Yvette Clark (D-NY), introduced H.R. 2417 - the “**Secure High-voltage Infrastructure for Electricity from Lethal Damage (SHIELD) Act**. The legislation amends the Federal Power Act to authorize the Federal Energy Regulatory Commission (FERC), with or without notice, hearing, or report, to order emergency measures to protect the reliability of either the bulk-power system or the defense critical electric infrastructure whenever the President issues a written directive or determination identifying an imminent grid security threat.
- The Center for Security Policy created and published a “Fact Sheet” on the SHIELD Act in an effort to support it moving through Congress. Nevertheless, congress failed to pass this legislation.
- From April 12 to July 11 the North Korean tramp steamer **Chong Chon Gang** sent irregular signals to the Automatic Identification System and this and "unspecified"

intelligence prompted Panamanian officials to seize the ship on 15 July at Manzanillo International Terminal where two nuclear capable SA-2 missiles were found under 250,000 bags of brown sugar. This vessel, with these missiles aboard, transited the entire Gulf of Mexico undetected, causing some in the intelligence community to conclude that this could be a rehearsal for a future “scud in a tub” EMP attack scenario.

- On August 27th, outgoing Director of the Department of Homeland Security, Janet Napolitano, said that a cyber-attack on the power grid was not a matter of “if” but a matter of “when.”
- On October 27th, National Geographic aired a docu-drama entitled “**American Blackout.**” It chronicled the horror that would be experienced by the country and its people in the event of a major disruption of the grid.
- On October 30th, U.S. Rep Trent Franks of Arizona introduced **H.R. 3410 – the Critical Infrastructure Protection Act** – to enable DHS to implement practical steps to protect the electric grid. The Congress failed to pass this legislation.

- **2014**

- **Secure the Grid Coalition** is established with co-chairs Newt Gingrich, former Speaker of the House, and R. James Woolsey, former Director of the CIA. Coalition members include national think tanks, industry leaders, emergency planners, and congressional EMP Commission members. A second state-level group is comprised of state leaders includes mechanical engineers, defense and space contractors, emergency planners, grassroots volunteers, the national guard, and local intel/FBI analysts.
- Center for Security Policy Press publishes **Guilty Knowledge: What the US Government Knows about the Vulnerability of the Electric Grid, But Refuses to Fix.**
- The Wall Street Journal reported that a joint terrorist strike on nine crucial electronic transmission substations could result in massive long term power outages across the U.S.
- The Iranian Revolutionary Guard Navy commenced patrols off the East Coast of the U.S.
- On March 26th, Rep. Henry Waxman (D-Calif.) and Sen. Ed Markey (D-Mass.) re-introduced **The Grid Reliability and Infrastructure Defense (GRID) Act**, which would allow FERC to issue emergency orders to protect the electricity infrastructure from threats and also attain regulatory power to protect against grid vulnerabilities. The bill was not enacted.
- On April 14th, electric, natural gas, and major water companies and regional distribution systems in Connecticut were penetrated by cyber attackers.
- On June 30th, CNBC reported that the industrial control systems of hundreds of European and U.S. energy companies had been infected by a sophisticated cyber weapon. Inspector General’s report concluded that FERC should have kept information about weaknesses in the U.S. power grid classified. STG Coalition Member Thomas Popik tells FERC that he believes the grid is “a battlefield of the future”.
- STG coalition partners hold press conference on Capitol Hill about vulnerability of the U.S. electric grid.

- STG, Association of Old Crows, CACI International Inc. host a symposium: **Cyber, Electronic Warfare, and Critical Infrastructure: Strategies for National Security** in McLean, Virginia.
 - On December 6th, U.S. Representative Trent Franks reports that “a [recently translated] **military doctrine from Iran mentioned EMP as a weapon more than twenty times.**”
 - Gaffney decides that Texas should be the top priority for state-level STG Coalition action.
- **2015**
 - The STG Coalition hosted a “Breakfast Briefing” in Austin TX on 21 January for members of the TX legislature to learn about threats to the U.S. Electric Grid and begin the discussion on how TX can secure its own grid.
 - Gaffney published “**Securing Freedom: 25 Years of Firefights in the War of Ideas**” with an entire chapter dedicated to reviewing his previous writings on the topic of the Grid and EMP.
 - The Center for Security Policy hosted the “**South Carolina National Security Action Summit**” on 14 March, bringing together members of the SGT Coalition such as Dr. Peter Vincent Pry and Ambassador Hank Cooper along with the following influential speakers: **Ambassador John Bolton, The Honorable Ted Cruz, The Honorable Rick Santorum.**
 - Gaffney and Pry conduct a briefing to hundreds of participants invited by the Louisiana Public Service Commission in New Orleans, LA on 17 March.
 - Gaffney conducts a briefing to LA Governor Bobby Jindal on 18 March.
 - The Center for Security Policy hosts the “**Iowa National Security Action Summit**” on 16 May, bringing together members of the SGT Coalition such as Pry and Cooper and the following presidential candidates: **Dr. Ben Carson, Governor Bobby Jindal, The Honorable Rick Santorum, and Donald Trump.**
 - Gaffney testifies in Texas on behalf of SB-1938 “If Texas leads, the nation will follow” referring to the independent Texas Interconnection. STG Coalition member Kevin Freeman also testifies in Texas, “Our enemies have contemplated, understand and targeted the grid.”
 - The Center for Security Policy hosts the “**New Hampshire National Security Action Summit**” on 25 July, bringing together STG Coalition members Pry, Cooper, Popik and Dr. George Baker and the following presidential candidates: **Governor Mike Huckabee, The Honorable Rick Santorum, and Governor George Pataki.**
 - STG Coalition publishes a rebuttal to the Edison Electric Institute white paper, “**Electromagnetic Pulses: Myths vs. Facts**”.
 - The Center for Security Policy hosts the “**Nevada National Security Action Summit**” on 14 December, bringing together STG Coalition’s Cooper, Pry, and TX Senator Bob Hall and the following influential speakers: **Herman Cain, The Honorable Rick Santorum, and Ambassador John Bolton.**
- **2016**

- In February, on Super Bowl Sunday, North Korea launched its KMS-4 satellite, which passed over the U.S. heartland and the DC-NYC corridor, approaching from the south where the U.S. has no early warning or missile defense – mimicking an EMP attack on the U.S.
- On **Secure Freedom Radio** (SFR), host Frank Gaffney interviewed Tom Popik, Chairman of the Foundation for Resilient Societies, STG Coalition member, and MIT-trained engineer, about grid vulnerability. SFR airs on WRC AM in Washington, D.C. and nationally every Saturday on Talk Radio Network. Listeners can also tune in to podcasts of radio shows on iTunes, Podbean, Stitcher, Tunein.com, The Reagan Radio Network, Lake of the Ozarks Radio, Red State Talk Radio, Cowboy Logic Radio and iHeart Radio.
- STG Coalition co-hosted with *Homeland Security Today* magazine a Critical Infrastructure Security Forum titled “**Toward a Secure Electric Grid.**” Participants included U.S. Senator Ron Johnson, Chairman of the Senate Homeland Security Committee; Former Director of the CIA R. James Woolsey; Dr. George H. Baker, Professor Emeritus at James Madison University and former head of the Defense Nuclear Agency’s Electromagnetic Pulse (EMP) program; and Thomas Popik, President of the Foundation for Resilient Societies.
- STG Coalition provided administrative and logistics support to Dr. Pry for a public briefing to the Louisiana Public Service Commissioners. The briefing attracted 150 concerned citizens and activists from around the state.
- STG Coalition brought together experts, activists, and leaders from the federal government and states such as Texas, Louisiana, Florida, South Carolina, New Hampshire, Maine, Virginia, Indiana, Nevada, and Nebraska to discuss growing threats to America’s electrical power infrastructure.
- STG Coalition presented the **Texas Grid Summit** held in Austin. This summit featured the world’s leading experts in defending military assets from electromagnetic pulse, leaders in emergency planning and business continuity from the Johns Hopkins Applied Physics Laboratory, and former Director of Central Intelligence Woolsey as the keynote speaker.
- STG Coalition members Gaffney, Pry, Cooper, and Woolsey briefed Louisiana Governor Jon Bel Edwards and participated in the Louisiana Emergency Preparedness Association (LEPA) annual conference, which focused on threats to the grid.
- STG Coalition members Pry and Cooper conducted a briefing to public service commissioners and influential policymakers from MS and AL.
- STG Coalition members Pry and Popik testified in Canada before the Canadian Senate Committee on National Security about the vulnerabilities of the Canadian power grid.
- STG Coalition members provided briefings to: Air Force leadership, the Texas Emergency Management Conference, Intelligence Fusion Center, Colorado Emergency Preparedness, NOAA Space Weather Workshop, the Governor of Louisiana as well as the Governor’s Office of Homeland Security and Emergency Preparedness.
- STG coalition members and former energy executive Paul Nehlen provided Wisconsin residents with information on electrical grid security issues during a televised panel hosted by Sinclair Broadcasting and TownHall.com. Wisconsin is a center point for grid security issues including critical infrastructure legislation, strategic transformer manufacturing, and extreme solar weather mitigation technologies.

- **Real Risk Management for the Electric Grid: Critical Task Planning For Long Term Power Outages** by emergency planner Jim LeBlanc is published by Center for Security Policy Press and available on Amazon.com.
 - STG, the Association of Old Crows, and CACI International Inc. host a symposium - **Countering Asymmetric Threats: A National Imperative** in the Washington, D.C. metropolitan area.
 - *Lights Out: A Cyberattack, A Nation Unprepared, Surviving the Aftermath* by Ted Koppel is published and becomes a *New York Times* bestseller.
 - With the support of the Center for Security Policy, Pry published **“The Long Sunday”** warning of an “electrical Pearl Harbor”
- **2017**
 - US Department of Energy released an alarming report that the US electric grid is in imminent danger from a cyberattack.
 - STG Coalition Co-Chair R. James Woolsey and Coalition member Pry warn in the Wall Street Journal that North Korea probably has nuclear arms specialized for “Super – EMP” – naming them the most dangerous weapons known to man. They call for reviving President Reagan’s Strategic Defense Initiative.
 - Congress passed the Critical Infrastructure Protection Act (CIPA) directing DHS to establish new national planning scenarios focused on protecting and recovering the nation from an EMP catastrophe.
 - STG Coalition victory in Texas – the Texas House unanimously passed HB787 to create a grid advisory committee and the Texas Senate passed SB83 to protect Texans against EMP, physical, and cyber-attack threats. Eventually these bills are killed by leadership, but Senator Bob Hall passes SCR 55 – a resolution that can accomplish much of what the legislation would have accomplished.
 - Pry in April/May 2017, appeared regularly on Fox News and Fox Business – especially on Lou Dobbs Tonight -- to discuss the risk from a North Korean EMP attack on the United States.
 - On 17 May, STG Coalition members Tommy Waller and Jim LeBlanc conduct a high level briefing to NASA and NREL personnel aboard Stennis Space Center, encouraging them to ensure that new infrastructure investments aboard Stennis are hardened against all hazards, including EMP.

What can you do to keep informed? Join us as an individual or corporate member of the [Secure the Grid Corporate Council](#) to receive:

- An invitation to participate in coalition conference calls featuring grid resiliency activists from the national and state level to discuss current initiatives
- Complimentary invitations to regional events to hear from local experts such as legislators, regional officials, or activists as well as national experts on current threats and progress in the states.

Donations are tax deductible contributions to a 501(c)(3) organization. For more information, please contact Julie Taylor at (202) 719-2415 or development@centerforsecuritypolicy.org.